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## ESTILL COUNTY

### (Estill County Water Service Area Map)

- Estimated 1999 population of 15,400--80% on public water
- Estimated 2020 population of 15,300--83% on public water
- 260 miles of water lines, with plans for 78 additional miles
- Estimated funding needs for public water 2000-2005--\$1,933,000
- Estimated funding needs for public water 2006-2020--\$6,698,000

Estill County had an estimated population of 15,420 (6,066 households) in 1999 with a projected population of 15,345 (6,700 households) in 2020. Public water is provided to about 80 percent of the county's residents. In areas of the county not served by public water, about 25 percent of the households rely on private domestic wells and 75 percent of the households rely on other sources. About 185 customers will be added to public water service through new line extensions in 2000-2020.

#### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
<b>ESTILL</b>								-
Irvine Municipal				300			70	370
Estill Co. W/D	18.0	51	823				740	1,563
<b>TOTAL</b>	<b>18.0</b>	<b>51</b>	<b>823</b>	<b>300</b>			<b>810</b>	<b>1,933</b>

#### *Estimated Costs - Proposed Projects, 2006-2020*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
<b>ESTILL</b>								-
Irvine Municipal				540		2,900	350	3,790
Estill Co. W/D	47	115	1,972				300	2,272
Powells Valley	12.5	17	536				100	636
<b>Total</b>	<b>59.5</b>	<b>132</b>	<b>2,508</b>	<b>540</b>		<b>2,900</b>	<b>750</b>	<b>6,698</b>

## PUBLIC WATER SYSTEMS

Estill County has 4 public water systems: 2 community--1 municipal, Irvine Municipal Utilities; 1 water district, Estill County Water District; and 2 non-community systems. Powells Valley Water District also serves customers in the county.

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# WATER SERVICE AREAS

## ESTILL COUNTY

### Kentucky

*Prepared By:*  
**Water Resource Development Commission**

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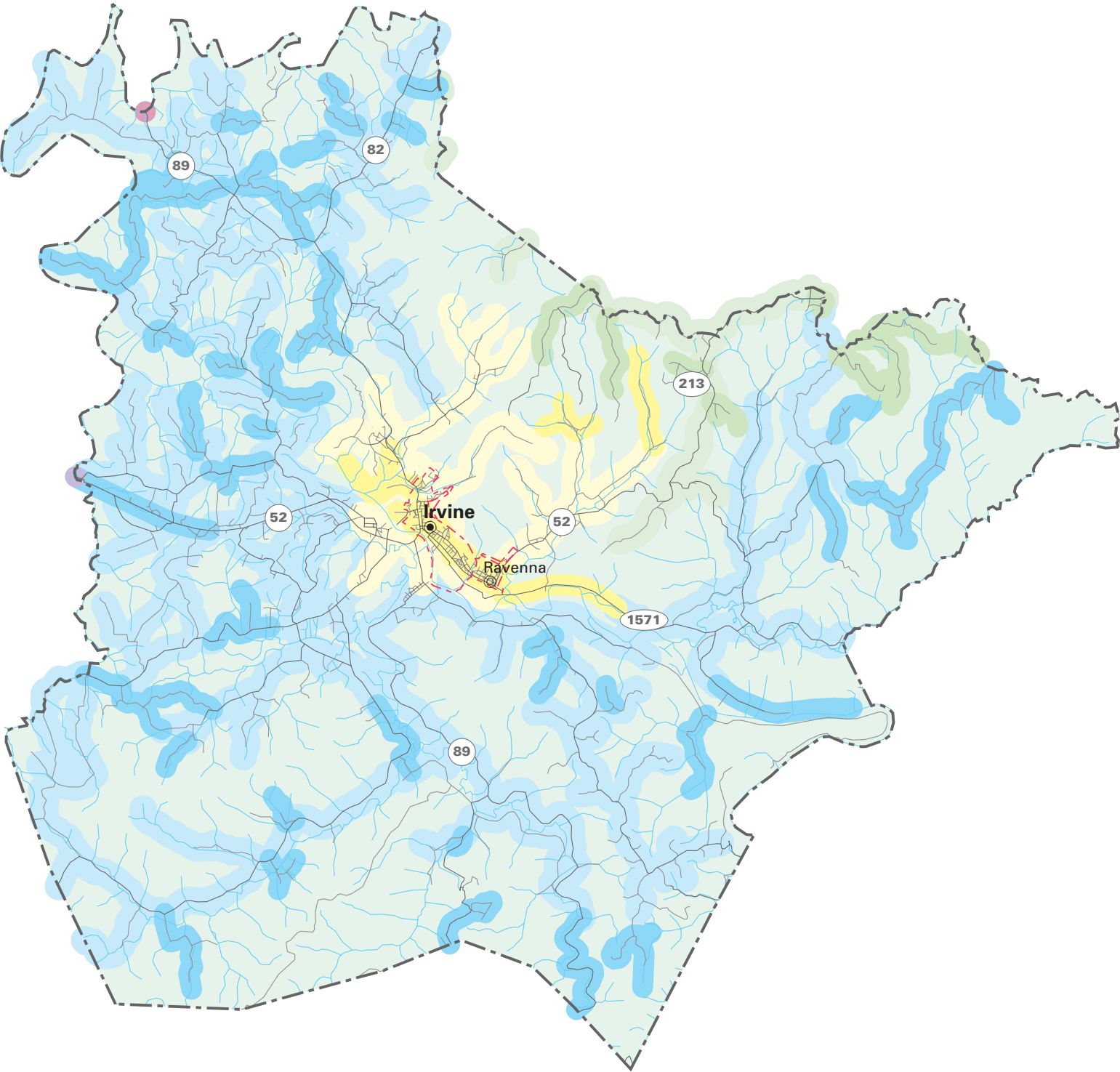
Bob Arnold, Chairman  
Lawrence Wetherby, Executive Director

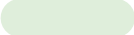
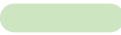


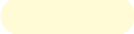

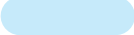



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WATER SERVICE STATUS BY OWNER		
EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		POWELL VALLEY WATER DISTRICT
		MADISON COUNTY UTILITIES/WACO
		IRVINE MUNICIPAL UTILITIES
		ESTILL COUNTY WATER DISTRICT
		EAST CLARK COUNTY WATER DISTRICT

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### **ESTILL COUNTY WATER DISTRICT**

PWSID: ..... 0330123  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER DISTRICT  
Surface Source:  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons): ..... 200,000.00  
Total Service Connections: ..... 2,749.00  
Number of Employees: ..... 6.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons: ..... 5.17  
O/M costs 1997: ..... 554,273.00  
O/M costs per Service Connection: ..... 206.28  
Net Revenue 1997: ..... 13,857.00  
Total Water Produced 1997 (gallons): ..... 0.00  
Water Sold 1997 (gallons): ..... 144,696,000.00  
Unaccounted-for Water 1997 (%): ..... 16.04

### **IRVINE MUNICIPAL UTILITIES**

PWSID: ..... 0330205  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source: ..... KENTUCKY RIVER POOL 11  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 2.00  
Percent Daily Average Production: ..... 51.00  
Total Tank Storage Capacity (gallons): ..... 100,000.00  
Total Service Connections: ..... 2,235.00  
Number of Employees: ..... 12.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class: ..... 3A  
Customer Rate for 1,000 Gallons: ..... Not available  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

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## OTHER SYSTEMS

### **UNITED METHODIST/ALDERGATE CAMP**

United Methodist/Aldergate Camp is located in Estill County. The system serves a population of 80 and has 1 service connection. The private, transient, non-community system has treatment capacity of 10,000 gallons per day and storage capacity of 300,000 gallons. The water source is from Springs.

### **LIFE ADVENTURE CAMP**

Life Adventure Camp is located in Estill County. The system serves a population of 143 and has 15 service connections. The private, transient, non-community system has storage capacity of 323,000 gallons.

## PRIVATE DOMESTIC SYSTEMS

About 3,100 residents of Estill County rely on private domestic water supplies: 800 on wells and 2,300 on other sources.

In the Kentucky River valley in central Estill County, most drilled wells will produce enough water for a domestic supply at depths of less than 100 feet. In the larger creek valleys throughout the county, some wells will produce enough water for a domestic supply except during dry weather. In the upland areas of Estill County, which encompasses 70% of the county, most drilled wells will not produce enough water for a dependable domestic supply except along drainage lines that may produce enough water except during dry weather.

Throughout the county ground water is hard or very hard and may contain salt or hydrogen sulfide, especially at depths greater than 100 feet. A few springs supply sufficient quantities of water for domestic use.

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